

CIVIL AND ENVIRONMENTAL ENGINEERING

Ateneo - Geophysical characterization of natural hazards and exposed infrastructures

Funded By	Politecnico di TORINO [P.iva/CF:00518460019]
Supervisor	COLOMBERO CHIARA - chiara.colombero@polito.it
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Context of the research activity	This PhD research project focuses on the optimization of geophysical methods for the geo-engineering characterization of the subsurface, with special reference to climate-change related natural hazards and exposed infrastructures in different environmental conditions.
Objectives	<p>Data transform, integration and joint inversion of different techniques (e.g. seismic, electrical, electromagnetic methods), comparison of active and passive data, may lead to a fast, reliable and comprehensive petrophysical imaging of the investigated targets. The aim of the research project is to develop and compare effective processing methods and fast assessment procedures for a petrophysical/geomechanical characterization of natural hazards and exposed infrastructures.</p> <p>The research topic is in line with the objectives of the PNRR projects NODES (Spoke 4 – Montagna digitale e sostenibile) and RETURN (VS2 – Ground Instabilities).</p>
Skills and competencies for the development of the activity	<p>The candidate should have a master degree in environmental, civil engineering or in geosciences. Basic knowledge on applied geophysics, geoengineering, environmental engineering, climate change monitoring and adaptation, applied geology is requested.</p> <p>Basic data processing and coding skills (e.g. Matlab or Python) are necessary for the development of the activity.</p>